CLAIMS:

1.   A video encoding method for the compression of an original video sequence divided into successive groups of frames (GOFs), said method comprising the steps of:

(1)   generating from the original video sequence, by means of a wavelet decomposition, a low resolution sequence including successive low resolution GOFs ;

(2)   performing on said low resolution sequence a low resolution decomposition, by means of a motion compensated spatio-temporal analysis of each low resolution GOF ;

(3)   generating from said low resolution decomposition a full resolution sequence, by means of an anchoring of the high frequency spatial subbands resulting from the wavelet decomposition to said low resolution decomposition ;

(4)   coding said full resolution sequence and the motion vectors generated during the motion compensated spatio-temporal analysis, for generating an output coded bitstream.

2.   A method according to claim 1, in which, for each frame, said high spatial subbands are directly anchored to the low resolution subband that, in said spatio-temporal decomposition, looks most like said frame, depending on the motion estimation direction.

3.   A method according to claim 1, in which a predictive mode is used to construct the high spatial subbands, said high spatial subbands resulting from a second wavelet decomposition performed on a prediction error obtained from a motion compensation applied to the original video sequence.

4.   An encoding device for the implementation of the video encoding method according to anyone of claims 1 to 3.

5.   A method for decoding an input bitstream coded by means of an encoding method according to anyone of claims 1 to 3, said decoding method comprising the steps of :

(1)   decoding said input coded bitstream for generating a decoded full resolution sequence and associated decoded motion vectors ;

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(2)   in said decoded full resolution sequence, separating the decoded high frequency spatial subbands and the decoded low resolution decomposition ;

(3)   generating from said decoded low resolution decomposition, by means of motion compensated spatio-temporal synthesis, a decoded low resolution sequence ;

5   (4)   reconstructing from said decoded low resolution sequence and the decoded high frequency spatial subbands an output full resolution sequence corresponding to the original video sequence.

6.   A decoding device for the implementation of the video decoding method
10   according to claim 5.